

Work Order ID 129646

129646

Page 1

February-23-15 8:44:25 AM

Item ID: D3391-025 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Aft Tube Assembly
 Start Date: 2/23/15 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 2/27/15 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3391	I								

100

100

Mori Seiki

Mori Seiki CNC Lathe Large

MORI SEIKI CNC LATHE LARGE

Memo

Turn as per Folio FA599

Rev: A & Dwg 12391 Rev: H

ensure steady rest is turning true

****REMOVE STEADY REST AND MACHINIG MARKS****

110

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

SCRAP

1 6

mml
15/02/23

1 6

mml
15/02/24

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Item ID:	D3391-025	Accept	*N900040100*	Setup	Start	*NS1*
Revision ID:						
Item Name:	Aft Tube Assembly				Stop	*NS2*
Start Date:	2/23/15	Start Qty: 1.00	*1*	Cust Item ID:		
Required Date:	2/27/15	Req'd Qty: 1.00	*1*	Customer:		
Reference:						

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

[illegible]

120		0.00	
120	HAAS CNC VERTICAL MACHINING #1		DAS 44 15/03/15 9-89
HAAS 1	Memo	0.00	
HAAS CNC vertical machine #1	1-Machine as per Folio FA 599 Rev: <u>I</u> & Dwg D3391 Rev: <u>I</u> 2-Deburr		

130	QC2- Inspect parts off machine FAI/FAIB	0.00			
130					
QC	Memo	0.00			
Quality Control					

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Item ID: D3391-025 Accept *N900040100* Setup Start *NS1*
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 Start Date: 2/23/15 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 2/27/15 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC8- Inspect parts - second check	0.00				1	0		DAS 14 9-89 15/03/16
140									
QC	Memo	0.00							
Quality Control	***INSPECT INSIDE BORE***								
150		0.00				1	0	15-3-16	Del
150	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803								
160		0.00				1	0	15-3-16	Del
160	BENDING MACHINE - SKIDTUBES								
CNC Bend 1	Memo	0.00							
CNC Delta 100 Bender	Form as per Dwg D3391 Using Bend Prog 3391025								

H 4.275

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Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Tube Assembly
 Start Date: 2/23/15 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 2/27/15 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC5- Inspect part completeness to step on W/O	0.00							
170									
QC	Memo	0.00							
Quality Control									


 15-3-16

Work Order ID 129646

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Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Tube Assembly
 Start Date: 2/23/15 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 2/27/15 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Skidtubes	0.00							
180									
Skidtubes	Memo	0.00							
Skidtubes	1-Open Aft cap pilot hole to .208" as per Dwg D3391								
	2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.								
	3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217 Wearplate Jig . *****Do Not Open To Finished Size*****								
	4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2 previously drilled aft wearplate holes.								
	5-Open wearplate holes to 0.297" and c'bore as per dwg D3391								
	6-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391.								
	7-Deburr								
	8- Scribe batch # on fwd end								

15-3-16
 15-3-17
 15-3-17
 15-3-17

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Quality Control

PTO
→
Last page

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Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Item Name: Aft Tube Assembly

Start Date: 2/23/15 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 2/27/15 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

220

0.00

220

Skidtubes

0.00

Skidtubes

Memo

Skidtubes

1- Instal spacers as per dwg D3391
A/R Magnabond 6398 Batch: _____
exp. date : _____
cure time 12hrs as per QSI0015

2- Grind crossbolts flush

3- Back drill using #9 drill

4- Touchup Magnabond

5- Deburr

230

QC5- Inspect part completeness to step on W/O	0.00
---	------

0.00

230

0.00

QC

Memo

Quality Control

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Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

[illegible]

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Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
 QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

[illegible]

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Item ID: D3391-025 Accept *N900040100* Setup Start *NS1*
 Revision ID:
 Item Name: Aft Tube Assembly Stop *NS2*
 Start Date: 2/23/15 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 2/27/15 Req'd Qty: 1.00 *1* Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
290	QC21- Final Inspection - Work Order Release	0.00							
290									
QC	Memo	0.00							
Quality Control									

Handwritten: 1549

Picklist Print

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Work Order ID: 129646

129646

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 2/23/15

Required Date: 2/27/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev B 06-02-07 ECN773 dwg rev. D EC
 IPP Rev:C 06-03-28 Update Manuf. Instructions JLM
 IPP rev D 07.03.20 revF dwg EC
 IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD
 IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC
 IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H
 11.11.14 AS PER REV.I DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4095-047		Manufactured	No			260	Each	22.0000	1	1			
-----------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--

D4095-047

Wearpad Aft

Location	Loc Qty	Loc Code
FP001	22	
116100	20	
120523	2	

D4095-049		Manufactured	No			260	Each	48.0000	1	1			
-----------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--

D4095-049

Wearpad Aft

Location	Loc Qty	Loc Code
FP001	48	
116084	12	
126331	36	

D6014-090		Manufactured	No			100	Each	44.0000	1	1			
-----------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--

D6014-090

ALUMINUM EXTRUSION

Location	Loc Qty	Loc Code
LG003	44	
79742	10	
86063	34	

1 arm 2 15/02/23

Picklist Print

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Work Order ID: 129646

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 2/23/15

Required Date: 2/27/15

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

230

Each

48.0000

4

4

D3670-4-200

Bushing

Location

Loc Qty

Loc Code

FG

10

87709

10

LG001

38

109108

38

D2646

Manufactured No

270

Each

67.0000

1

1

D2646

Aft Cap

Location

Loc Qty

Loc Code

FG

4

85848

2

90495

2

FP001

63

103306

1

114495

6

127924

21

128761

35

D3672-1

Manufactured No

270

Each

882.0000

2

2

D3672-1

Washer, Phenolic

Location

Loc Qty

Loc Code

FG

10

85222

10

FP001

280

113581

280

ST055

592

120116

92

127322

500

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Shop Packet Print

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Picklist Print

February-23-15 8:44:24 AM

Work Order ID: 129646

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 2/23/15

Required Date: 2/27/15

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130 AELS4-1032-130 Purchased

No

260

Each

2,566.000

14

14

AI S4-1032-130

Rivnut

Location

Loc Qty

Loc Code

CA

1567

M128649

1567

st549

999

110511

10

M128649

989

ALS4-1032-225 AELS8-1032-225 Purchased

No

270

Each

2,988.000

8

8

AI S4-1032-225

Rivnut

Location

Loc Qty

Loc Code

FG

120

M127028

120

FP001

41

M131067

41

st549

2827

M131582

2827

AN3C4A Purchased

No

270

Each

1,444.000

6

6

AN3C4A

Bolt

Location

Loc Qty

Loc Code

FG

20

122814

20

FP001

24

M130716

24

ST338a

1400

M131320

400

M131420

1000

Picklist Print

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Work Order ID: 129646

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 2/23/15

Required Date: 2/27/15

Start Qty: 1.00

Required Qty: 1.00

AN3C5A	Purchased	No	270	Each	953.0000	4	4
--------	-----------	----	-----	------	----------	---	---

AN3C5A

Bolt

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	5	
122800	5	
ST338a	526	
M130770	10	
M130851	16	
M131320	500	
ST350	422	
M131420	422	

NAS1149C0332R	Purchased	No	270	Each	5,324.000	10	10
---------------	-----------	----	-----	------	-----------	----	----

NAS1149C0332R

WASHER

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	2155	
m130325	2140	
m130466	15	
GA	2	
125654	2	
ST271	3167	
125654	44	
m131340	1123	
m131618	2000	

DART AEROSPACE LTD		Work Order: 124646
Description: Float Skidtube (412)		Part Number: D3391-3
Inspection Dwg: D3391	Rev: 1	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

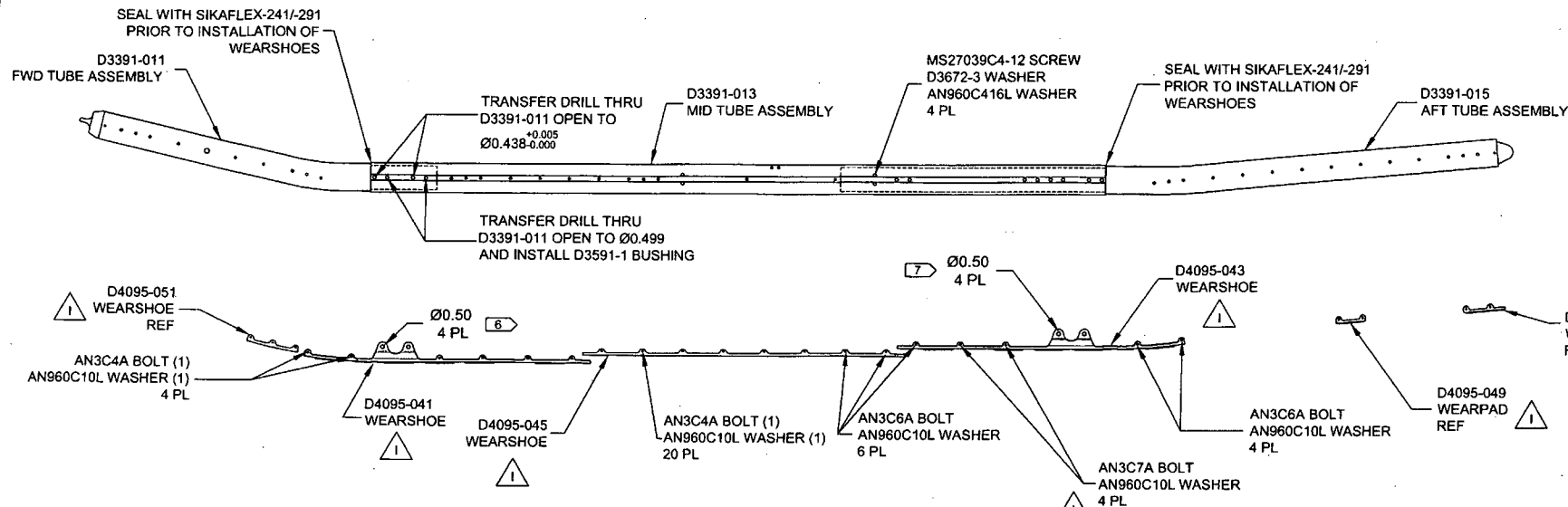
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.000	✓		Tape	LG-11
3.500	+/-0.010	3.503	✓		Vern	CNC-08
Ø3.200	+/-0.010	3.201	✓			
Ø3.750	+/-0.010	3.750	✓			
30° x 0.060 chamfer	+/-0.010	30° x .060	✓			
88.93	+/-0.030	88.93	✓		Tape	LG-11

Measured by: mm	Date: 15/02/23
Audited by: DAS	Date: 15-02-23

HAAS Section						
1.526	+0.000/-0.030	1.516	✓		Vern	CNC-02
7.500	+/-0.010	7.497	✓		"	"
27.750	+/-0.010	27.750	✓		Tape	FK-05
31.750	+/-0.010	31.750	✓		"	"
35.250	+/-0.010	35.250	✓		"	"
3.300	+/-0.010	3.305	✓		Vern	CNC-02
0.200	+/-0.010	.201	✓		"	"
3.520	+/-0.010	3.524	✓		"	"
0.687	+0.010/-0.000	.688	✓		"	"
R0.062	+/-0.010	.062	✓		R-G.	
Ø0.484	+0.005/-0.001	.486	✓		Vern	CNC-02

Measured by: FK	Date: 15/03/15
Audited by: DAS	Date: 15/03/16

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	
I	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ	
L	12.11.28	88.93 dimension added	KJ	



D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
2	D3591-1	BUSHING
4	D3672-3	WASHER
1	D4095-041	WEARSHOE
1	D4095-043	WEARSHOE
1	D4095-045	WEARSHOE
1	D4095-047	WEARSHOE
1	D4095-049	WEARPAD
1	D4095-051	WEARSHOE
24	AN3C4A	BOLT
10	AN3C6A	BOLT
4	AN3C7A	BOLT
38	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

GENERAL NOTES

- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCRYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
- FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

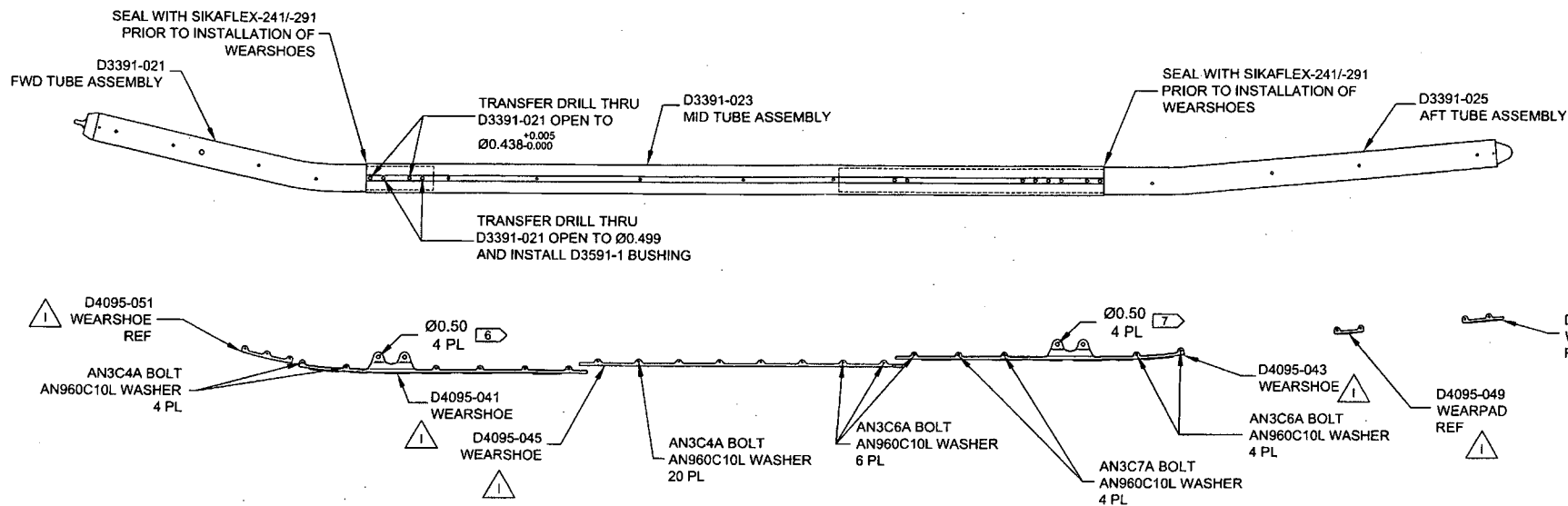
RELEASED
2011-11-04
ECN#11-662

I	REMOVE GASKETS AND REPLACE ALL WEARSHOES; PARTS LIST UPDATE, ZN A8-1, ZN A8-2, ZN A6-4, ZN B6-8; LPS-3 COATING REMOVED FROM NOTE 2, ZN A3-1, ZN A3-2, REMOVED INSERT AELS-1032-130, ZN B6-4, B2-4, C7-8, C3-8; REMOVED HOLES, ZN D6-4 ZN D2-4, ZN D7-8, ZN D3-8	XDF	11.10.13
H	DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DSI 9364 & NCR 08-074)	AJS	08.08.20
G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS. DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	XDF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.10.13		

DART AEROSPACE USA, INC
KENT, WA

DRAWING NO. D3391
REV. 1
SHEET 1 OF 8
TITLE 412 FLOAT SKIDTUBE
SCALE NTS

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D3391-043 ASSEMBLY

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

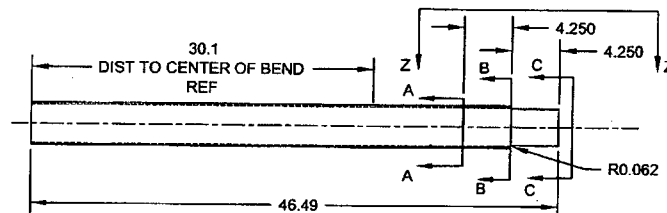
QTY -043	PART NUMBER	DESCRIPTION
X	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
2	D3591-1	BUSHING
1	D4095-041	WEARSHOE
1	D4095-043	WEARSHOE
1	D4095-045	WEARSHOE
1	D4095-047	WEARSHOE
1	D4095-049	WEARPAD
1	D4095-051	WEARSHOE
24	AN3C4A	BOLT
10	AN3C6A	BOLT
4	AN3C7A	BOLT
38	AN960C10L	WASHER

GENERAL NOTES

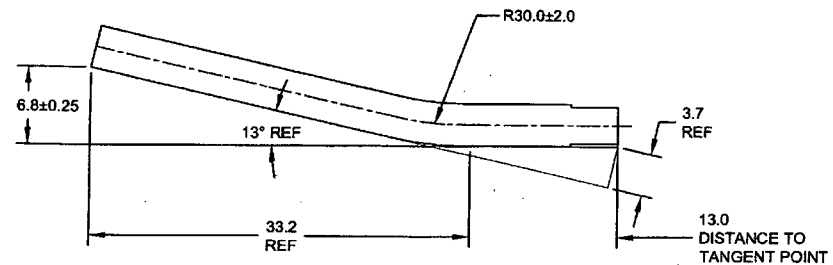
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON"
- 3) AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- 7) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

RELEASED
2011-11-04

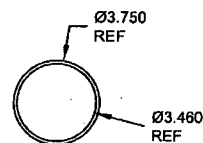
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO.	REV. 1
MFG. APPR.		D3391	SHEET 2 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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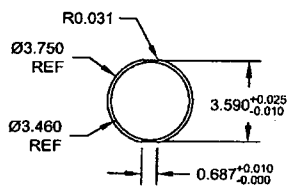
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



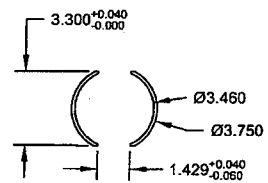
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



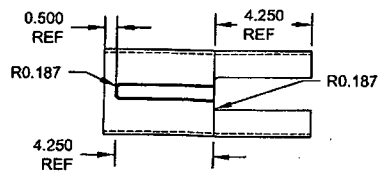
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SECTION B-B
SCALE 2X



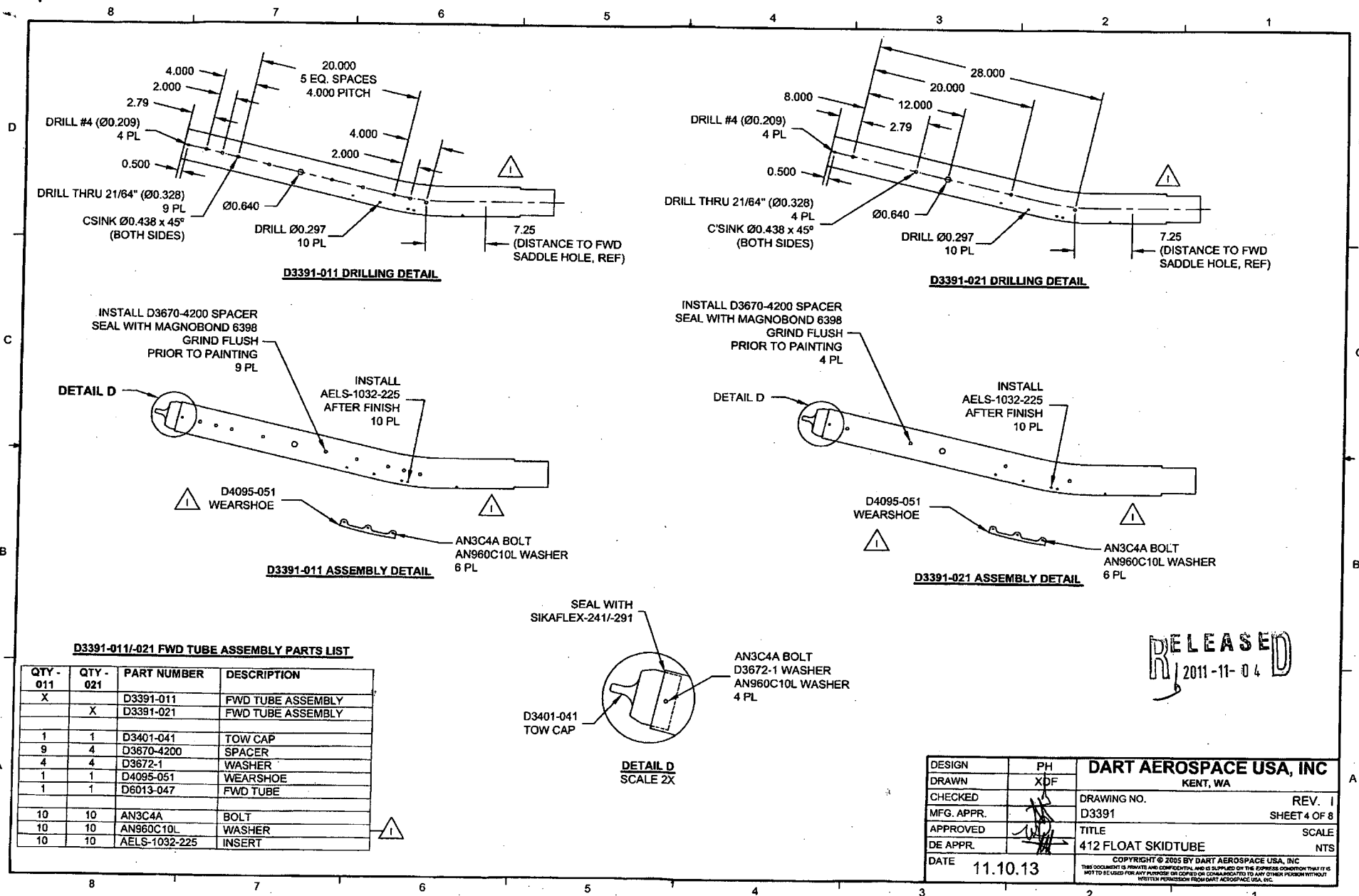
SECTION C-C
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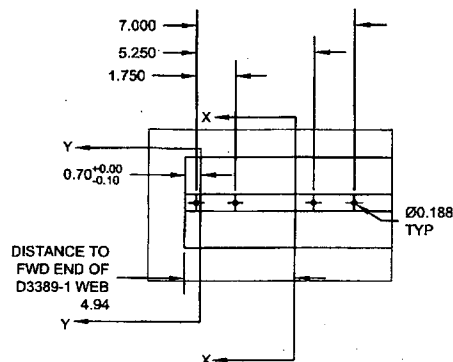
VIEW Z-Z
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2011-11-04

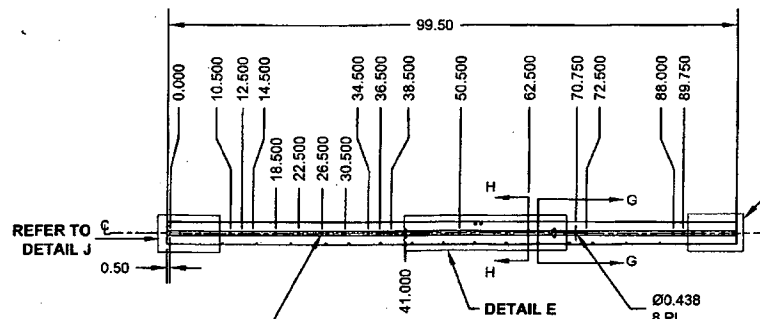
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MFG. APPR.		D3391	SHEET 3 OF 8
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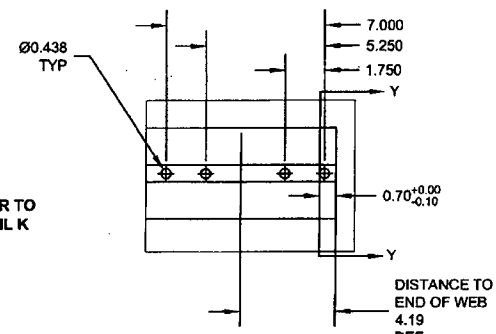
8 7 6 5 4 3 2 1



DETAIL J
SCALE 4X



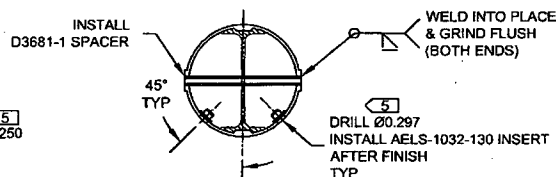
D3391-013 ASSEMBLY DETAIL
SCALE 5X



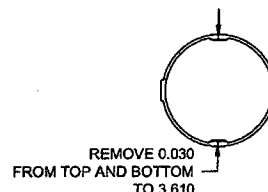
DETAIL K
SCALE 4X



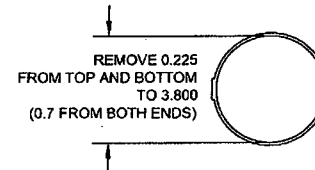
SECTION G-G
SCALE 5X



SECTION H-H
SCALE 5X



SECTION X-X
SCALE 5X



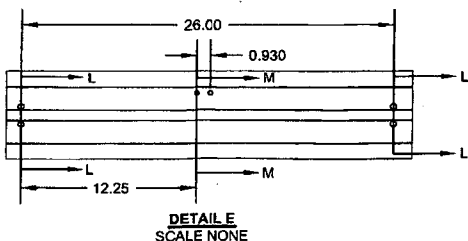
SECTION Y-Y
SCALE 5X

D3391-013 MID TUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3391-013	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
4	D3672-1	WASHER
4	D3672-3	WASHER
12	D3681-1	SPACER
24	AELS-1032-130	INSERT
4	ALS4-428-165	INSERT
4	AN960C10L	WASHER
4	AN960C416L	WASHER
4	MS27039C1-09	SCREW
4	MS27039C4-08	SCREW

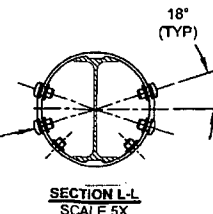
D3391-013 MID TUBE ASSEMBLY

- MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- WELDING: PER DART QSI 004

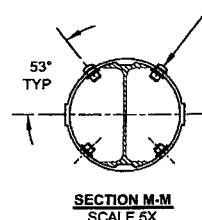


DETAIL E
SCALE NONE

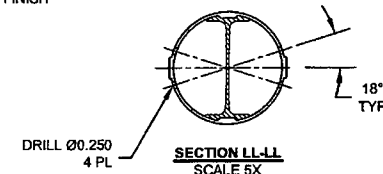
DRILL 0.391
INSTALL ALS4-428-165 INSERT
MS27039C4-08 SCREW
D3672-3 WASHER
AN960C416L WASHER
AFTER FINISH
4 PL



SECTION L-L
SCALE 5X



SECTION M-M
SCALE 5X

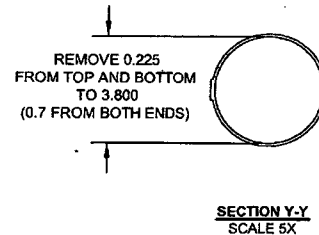
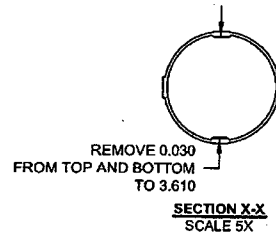
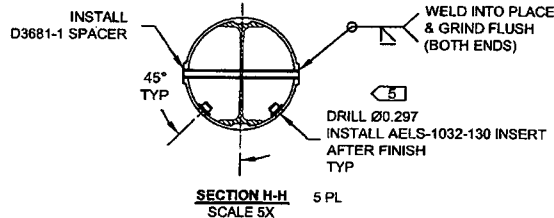
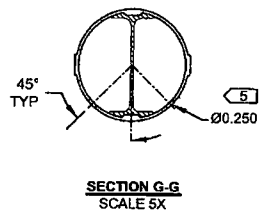
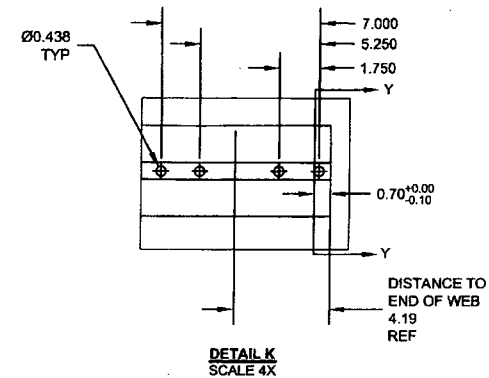
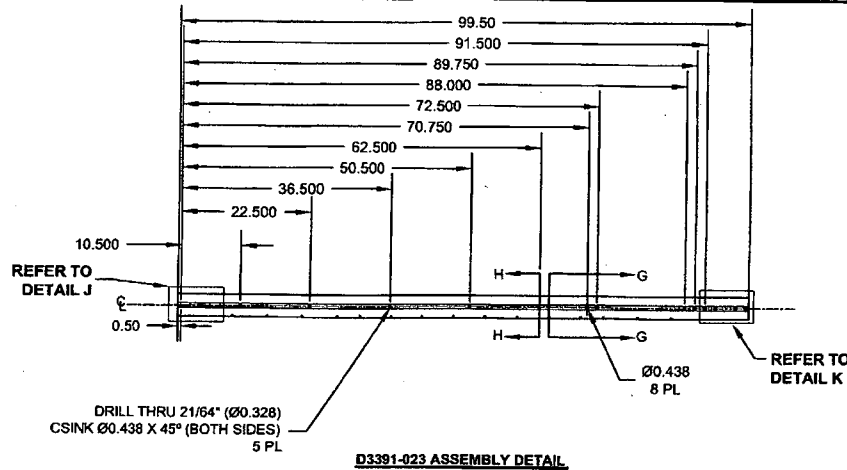
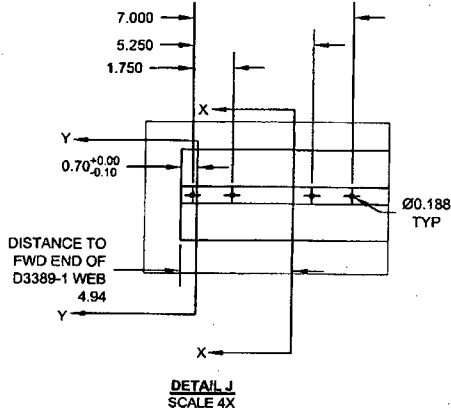


SECTION LL-L
SCALE 5X

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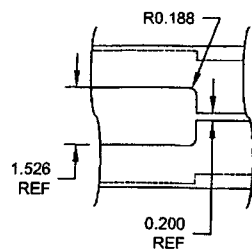
D3391-023 MID TUBE ASSEMBLY PARTS LIST

QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

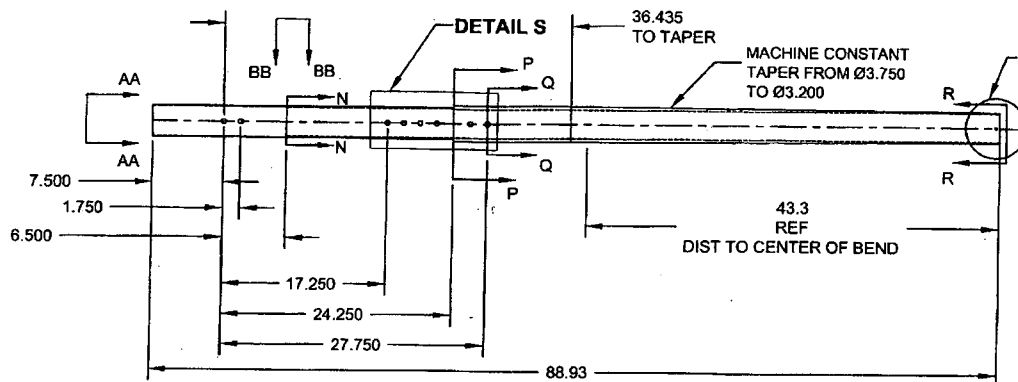
- D3391-023 MID TUBE ASSEMBLY**
- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
 - 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
 - 3) WELDING: PER DART QSI 004

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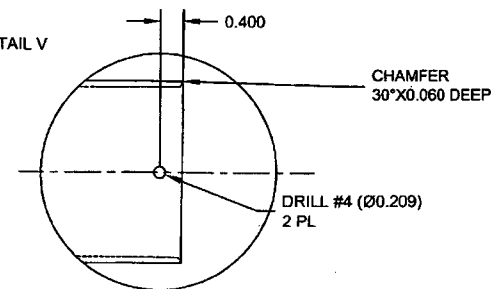
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2011-11-04



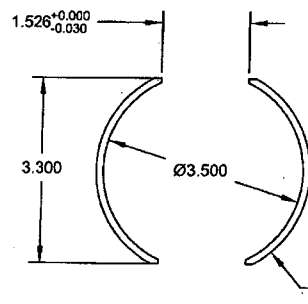
VIEW BB-BB
SCALE 4X



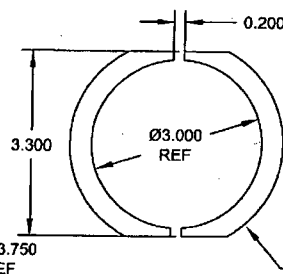
D3391-3 AFT DRILLING AND CUTTING DETAIL
(MAKE FROM D6014-090 SKIDTUBE MATERIAL)



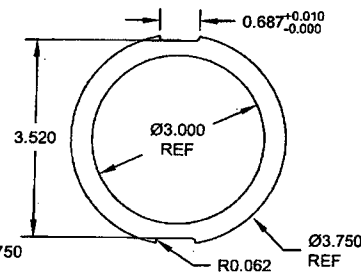
DETAIL V
SCALE 6X



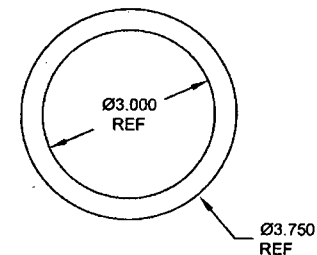
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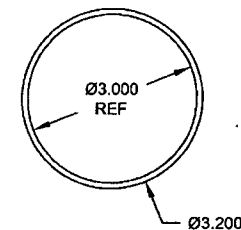
SECTION N-N
SCALE 6X



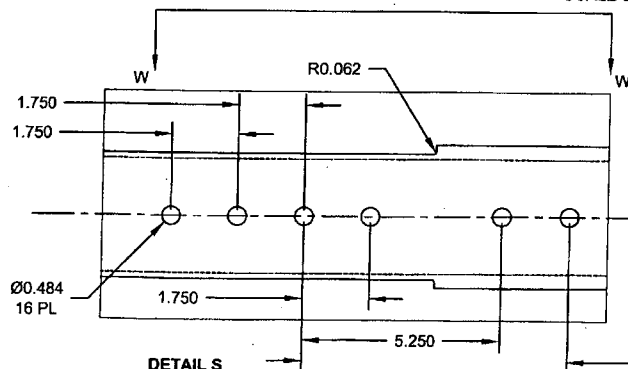
SECTION P-P
SCALE 6X



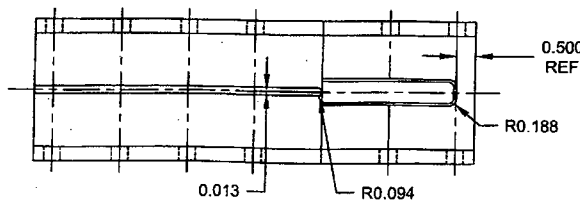
SECTION Q-Q
SCALE 6X



SECTION R-R
SCALE 6X



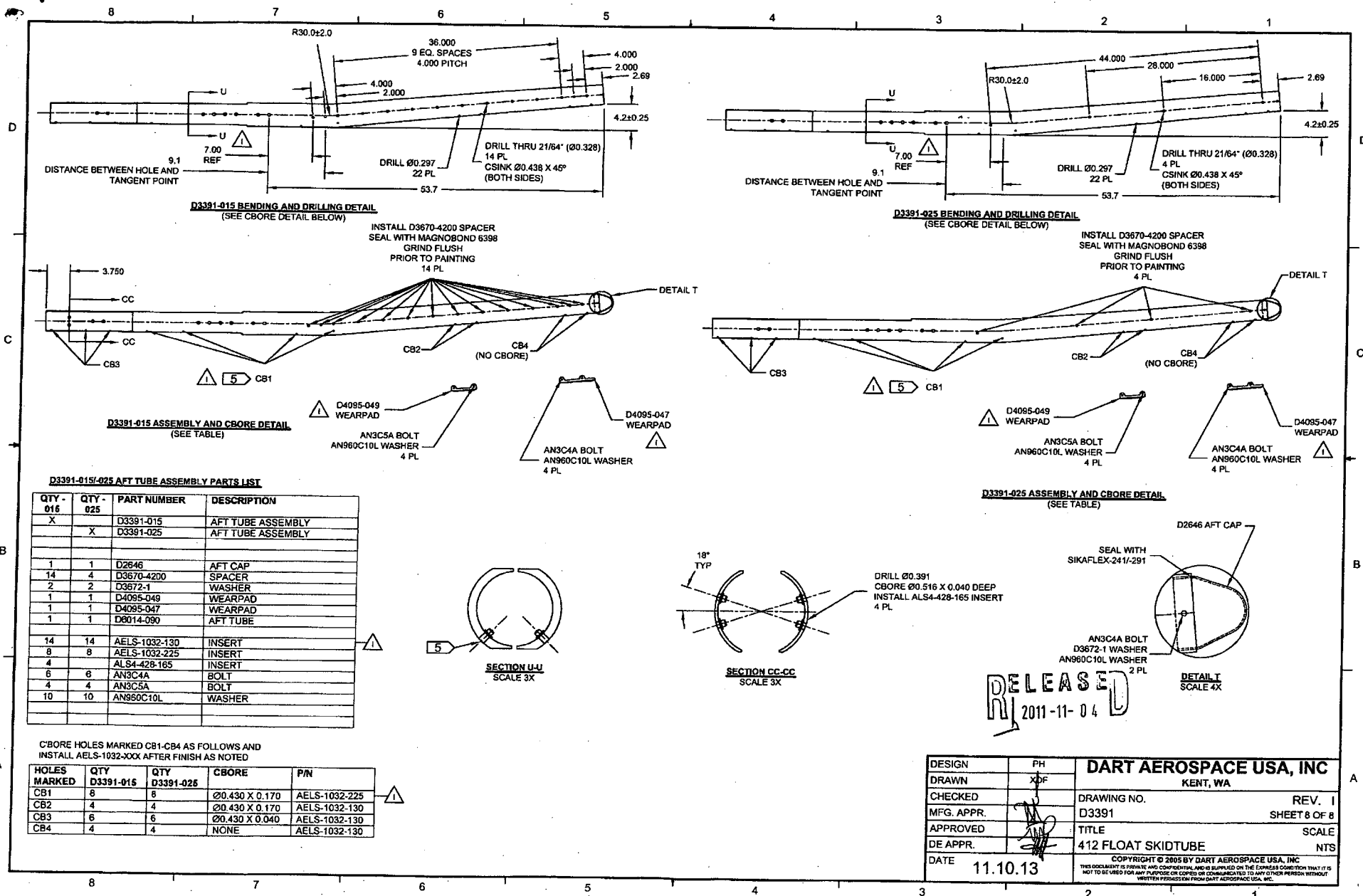
DETAIL S
SCALE 4X



VIEW W-W
SCALE 4X

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φ 0.524

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>129646</u> Part No. <u>D3391-025</u> NCR No. _____	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☒</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☒	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☒	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☒ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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